4/30/88 A 2500-2

Paper Paperboard & Wood Pulp

MONTHLY STATISTICAL SUMMARY - Vol. 66 No. 3 MARCH 1988

PAPER AND PAPERBOARD PRODUCTION REMAINS STRONG

The rate of paper and paperboard production in the first two months of 1988 held close to its fourth quarter 1987 high. The seasonally adjusted rate was 3.9% above its year-earlier level. Weekly data for March indicate a continuation of this strong pattern.

The January-February 1988 unadjusted total was 5.8% above its year-earlier level. The difference between the unadjusted and adjusted increases largely reflect the effect of the Leap-year day in February, which will diminish as the year progresses. The year-to-year changes reported for the individual grades in the following text and on page 3 are based on the unadjusted 1988 levels, and are about 2 percentage points above the underlying growth trends.

PAPER

The growth in the paper sector continues to be led by the communication papers. Coated papers contributed the largest shipments gain in this group, with an 11.8% gain from their year-earlier total in the first two months of 1988. Unfilled orders have been holding fairly close to the relatively high 700,000 tons level established in the June-July 1987 period. January imports of this grade, at 638,000 tons per year, were well above last January's annual rate, but below the 675,000 tons imported in calendar 1987. Coated papers exports were also well above their year-ago level, but below the rate for all of 1987 (see page 9 for data on imports and exports).

Shipments of uncoated free sheet papers in January-February 1988, at 11,138,000 tons per year, were 8.5% above the total in the same period last year. Unfilled orders are maintaining the high levels first reached in October 1987. January trade data show imports of this grade at a rate of 523,000 tons per year, up 14.8% from the January 1987 rate.

Domestic newsprint production in the first two months of 1988 was up 5.0% from its year-earlier total. However, both imports and exports in the first month of the year were down from their January 1987 total. Inventories of newsprint at U.S. and Canadian mills declined slightly from year-ago levels, but newsprint stocks at publishers increased 6%. Stocks at publishers were equivalent to 44 days of supply, compared to 42 days in February 1987 and 45 days in February 1986.

Continued on page 2

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Although production of unbleached kraft paper was 4.3% below its year-ago level in the first two months of 1988, it showed a 1.5% increase from the 1987 fourth quarter rate. Most of this increase occurred in shipments of multiwall bag paper.

Spurred by the gains in industrial production and a growing foreign demand, paperboard production closed the first two months of 1988 with a gain of 6.1% in the unadjusted data from the same period last year. The fastest growth was exhibited by unbleached kraft linerboard, which increased 8.5%. Production for export of this grade in the the first two months of 1988 were an impressive 19.0% higher than in the same two months of 1987 (see table on page 3).

Containerboard inventories at box plants and supplier mills as of March 1, 1988 were 10% above their year-ago level. The 1988 level was equivalent to 5.9 weeks of supply, compared to 5.5 weeks of supply one year ago.

Recycled paperboard production gained 6.1% from its year-ago level, largely the result of a 14.5% increase in production of recycled corrugating medium. Semichemical paperboard production rose by 2.3% in this period, bringing the production of total corrugating medium up 5%. Solid bleached paperboard production increased 1.3%, led by a 2.6% gain in production of solid bleached folding boxboard.

MARKET WOOD PULP

Market pulp continues to enjoy a strong domestic and foreign demand. Production of paper grade chemical market pulp in the first two months of 1988 increased 13% from its corresponding 1987 total. The gain was centered on exports, which increased 20% from its year-earlier total. The major purchasers of these exports were Western Europe, with 40% of the total, Japan, with 22%, and Asia/Africa, with 21%. The major increases were in shipments to Japan, whose 40,000 short tons increase resulted in a 44% gain, and the Asia/African countries, which posted a gain of 33,000 short tons, 36% above their year-ago level.

Although the year-to-year gain in shipments of these pulps was slightly greater than that of production, the two-month 1988 total was 47,000 short tons below production, leading to a corresponding increase in producer's market inventories. This rise was largely seasonal with the 1988 level 20% below its year-ago level.

INTERNATIONAL TRENDS: UNIT LABOR COSTS IN MANUFACTURING

In the article on international productivity (Monthly Labor Review, December 1987) the Bureau of Labor Statistics presented data on trends of hourly compensation and unit labor costs in manufacturing in 13 countries. The reported trends on unit labor costs were calculated in terms of both domestic currencies and their equivalent in United States dollars at the exchange rates that existed in each of the years shown.

The table on the bottom of page 10 shows annual index data on unit labor costs in 12 countries. While the data refer to all manufacturing, they are probably indicative of paper industry trends

Continued on page 11

PAPER AND PAPERBOARD STATISTICS

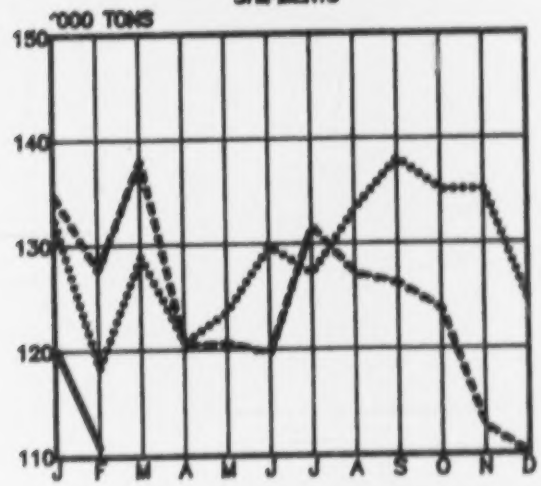
PRODUCTION, SHIPMENTS AND ORDERS
(Thousands of Short Tons)

	YEAR 1986	YEAR 1987	NOVEMBER 1987 (P)	DECEMBER 1987 (P)	JANUARY 1988 (P)	FEBRUARY 1988 (P)	Annual Rate Y-T-D 1988	% Change From same Period Last Year
PAPER								
Newsprint - Production	5,630	5,842	482	499	499	479	5,865	5.0
- Shipments	5,638	5,854	484	508	482	479	5,768	5.2
Printing & Writing Sum	19,625	20,750	1,723	1,784	1,811	1,744	21,332	7.8
Groundwood Paper - Shipments	1,540	1,491	112	110	120	111	1,382	-12.0
- New Orders	1,553	1,548	113	128	124	124	1,491	-1.6
-Unfilled Orders	124	179	153	179	165	184	184	85.8
Coated Papers - Shipments	6,263	6,869	587	592	635	592	7,357	11.8
- New Orders	6,334	7,187	563	615	624	585	7,253	11.7
- Unfilled Orders	469	739	693	739	693	695	695	48.8
Unctd Free Sheet - Shipments	10,410	10,983	987	960	940	917	11,138	8.5
- New Orders	10,485	11,195	919	979	940	914	11,126	9.3
- Unfilled Orders	587	778	738	778	729	746	746	39.5
Thin Papers - Shipments	271	251	20	23	20	23	254	-3.3
Cotton Fiber Paper - Shipments	152	161	13	12	13	14	161	1.9
Bleached Bristols - Production	950	995	84	87	85	89	1,040	9.1
Tissue Paper - Production	5,095	5,300	442	449	446	437	5,298	3.4
Total Packaging & Other Paper	5,117	5,068	419	432	440	434	5,243	-0.5
Unbl. Kraft Paper - Shipments	3,383	3,075	243	261	262	255	3,181	-4.3
Other Paper - Production	1,814	1,993	176	171	177	180	2,141	5.6
TOTAL PAPER-Production-Unadj.	35,466	36,959	3,066	3,164	3,195	3,094	37,738	5.5
-Production-S.A.			3.116	3.119	3,123	3,126	37,495	3.5
PAPERBOARD - PRODUCTION								
Solid Wood Pulp Furnish	27,336	28,900	2,330	2,474	2,581	2,389	29,340	6.1
Total Unbl. Kraft Paperboard	17,689	18,888	1,527	1,642	1,637	1,576	19,276	8.5
Unbl. Kraft Linerboard (1)	16,402	17,608	1,443	1,531	1,527	1,475	18,011	8.5
Production for Export	2,246	2,268	139	217	205	221	2,556	19.0
Other Unbl. Kraft Paperboard	1,287	1,281	84	111	110	101	1,265	7.3
Semichemical Paperboard	5,376	5,606	458	458	488	454	5,655	2.3
Production for Export	213	186	11	12	10	11	123	-41.3
Solid Bleached Paperboard	4,271	4,406	345	382	376	359	4,488	1.3
Production for Export	569	564	46	47	45	51	578	2.5
Recycled Paperboard	8,883	8,594	739	691	749	719	8,812	6.1
Production for Export	70	68	9	6	6	5	66	185.8
TOTAL PAPERBOARD-Prod.-Unadj.	35,419	37,493	3,069	3,165	3,251	3,108	38,151	6.1
- Containerboard Prod.(Dom. Use)	21,426	23,826	1,938	1,947	1,999	1,889	23,327	7.8
- Boxboard Prod.(Dom. Use) (2)	5,983	6,178	505	515	538	507	6,269	1.6
- All Other P'bd Prod.(D.U.) (2)	4,992	5,218	428	421	447	425	5,233	3.5
- Total Paperbd Prod. for Export	3,097	3,079	296	282	266	288	3,323	12.9
TOTAL PAPERBOARD PROD.- S.A.			3,175	3,183	3,183	3,174	38,141	4.3
TOTAL PAPER AND PAPERBOARD								
Production - Unadj. (R)	70,885	74,453	6,135	6,342	6,446	6,202	75,889	5.8
Production - S.A.			6,291	6,303	6,306	6,300	75,636	3.9

(1)Includes all exports of kraft paperboard. R - Revised P - Preliminary S.A. - Seasonally Adjusted
(2)Data for unbl. kraft folding boxboard incl. in All Other P'bd.

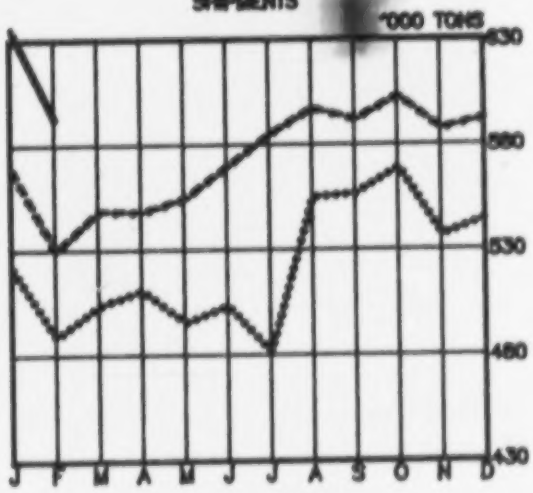
GROUNDWOOD PAPER, UNCOATED

SHIPMENTS



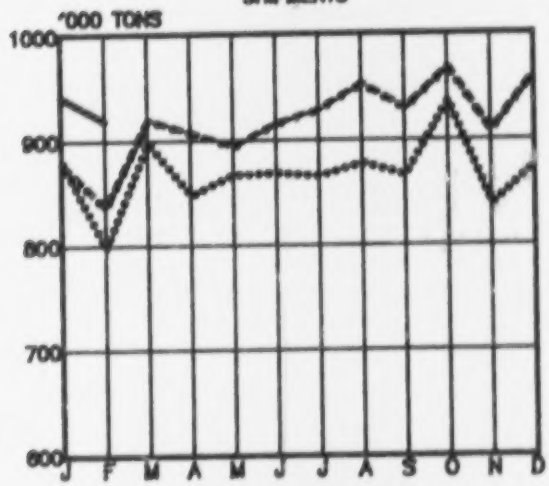
COATED PAPER

SHIPMENTS



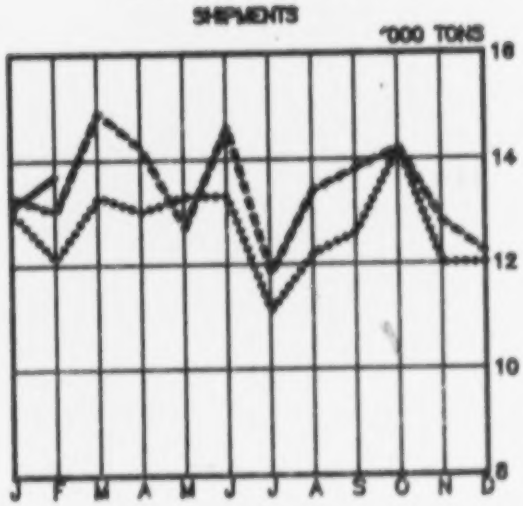
UNCOATED FREE SHEET PAPERS

SHIPMENTS



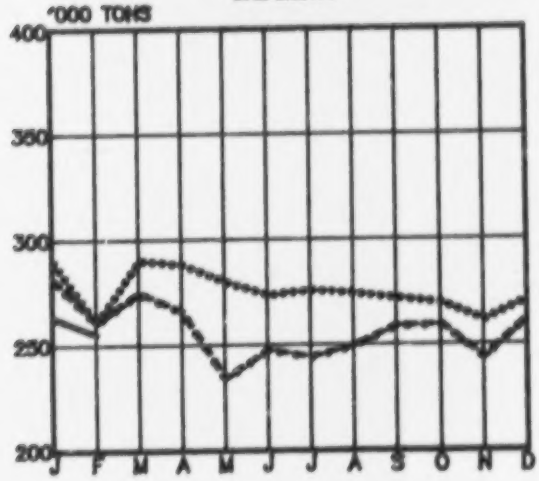
COTTON FIBER PAPER

SHIPMENTS



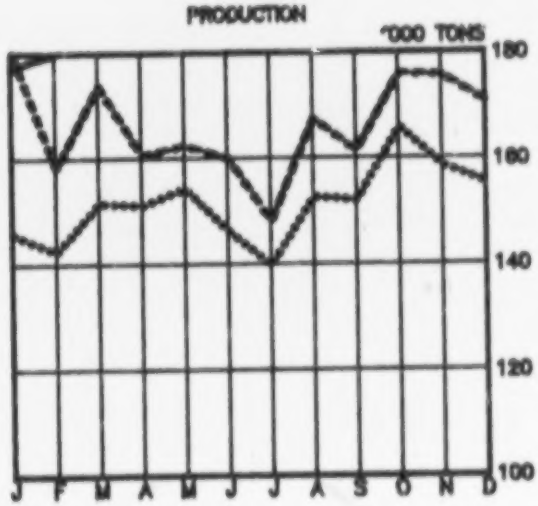
UNBLEACHED KRAFT PACKAGING
AND INDUSTRIAL CONVERTING PAPER

SHIPMENTS



OTHER PAPER

PRODUCTION



1986 ••••••• 1987 - - - - - 1988 ———

WOOD PULP STATISTICS
(Thousands of Tons)

	YEAR 1986	YEAR 1987	OCTOBER 1987	NOVEMBER 1987	DECEMBER 1987	JANUARY 1988	Annual Rate Y-T-D 1987	% Change from same Period Last Year
					R	P		
TOTAL WOOD PULP								
Total Wood Pulp - Production	57,017	59,564	5,066	4,812	5,168	5,271	63,252	4.2
- Imports	4,582	4,050	386	401	415	390	4,679	-11.9
- Exports	4,458	4,089	333	365	527	391	4,687	27.5
- New Supply	57,140	59,525	5,119	4,848	5,048	5,270	63,244	1.4
Dissolving Pulp - Production	1,258	1,312	88	137	109	98	1,189	-9.2
Imports	255	198	19	9	9	28	245	75.2
- Exports	711	752	53	61	72	67	884	24.6
- New Supply	801	757	54	85	45	52	628	-21.9
Paper Grades - Production	46,881	48,293	4,110	3,851	4,227	4,285	51,422	4.7
Chemical Pulp - Imports	4,220	4,456	345	376	378	353	4,248	-16.7
- Exports	3,689	4,111	278	301	449	322	3,866	28.8
- New Supply	46,612	48,637	4,176	3,925	4,156	4,316	51,796	1.2
Groundwood and - Production	5,487	5,714	501	472	484	512	6,144	4.7
Thermo-Mech. - Imports	188	197	23	17	28	16	195	139.1
- Exports	59	26	2	3	5	1	17	45.4
- New Supply	5,536	5,885	523	486	507	527	6,322	6.4
Semi-Chemical - Production	4,191	4,246	367	352	339	376	4,506	1.2
- Imports								
- Exports								
- New Supply	4,191	4,246	367	352	339	376	4,506	1.2
MARKET WOOD PULP								
Total Market - Production	7,514	8,128	670	670	723	722	8,668	9.6
Wood Pulp - Imports	3,122	3,235	267	268	293	272	3,261	14.2
- Exports	4,478	4,820	383	317	531	363	4,351	22.6
- New Supply	6,166	6,543	554	613	485	631	7,578	5.1
Dissolving Pulp - Production	1,234	1,308	88	137	109	98	1,188	-8.8
- Imports	212	154	14	8	8	19	228	169.3
- Exports	718	775	56	47	88	57	678	35.8
- New Supply	728	687	46	99	29	61	738	-15.9
Paper Grades - Production	6,264	6,806	582	532	613	623	7,470	13.8
Chemical Pulp - Imports	2,831	2,975	249	246	272	245	2,961	7.7
- Exports	3,752	4,045	328	270	443	306	3,672	28.4
- New Supply	5,343	5,736	494	508	442	562	6,739	7.1
Groundwood Pulp - Production	16	14	1	1	1	2	18	25.8
and All Other - Imports	79	106	13	6	14	8	91	136.2
- Exports	8	8	0	0	0	0	1	0.8
- New Supply	96	128	14	7	15	9	108	102.6

SOURCES: Total Wood Pulp Production & Market Wood Pulp Production, Imports & Exports Pulp Division, Pulp, Materials and Technology Group, API. Total Wood Pulp Imports & Exports - Department of Commerce.

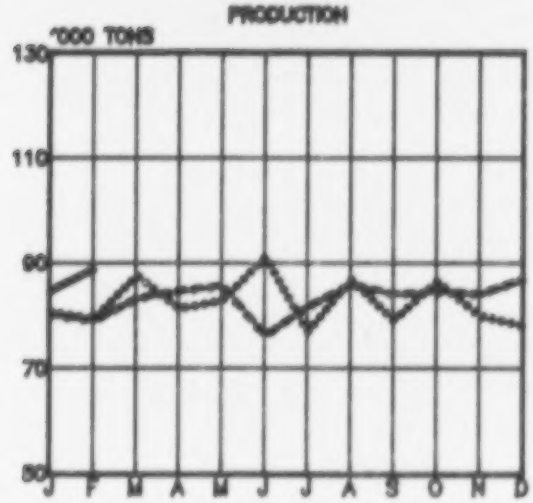
FIBROUS RAW MATERIALS
(Thousands of tons)

CONSUMPTION AT PAPER & PAPERBOARD MILLS					R	P		
Total	73,556	77,865	6,630	6,310	6,542	6,733	80,798	3.3
Total Wood Pulp	56,320	58,717	5,011	4,756	5,053	5,166	61,991	2.6
Waste Paper	17,236	18,348	1,619	1,553	1,489	1,567	18,808	5.6
INVENTORIES								
Chemical Paper Grade Market Pulp								
Producers Own-Use Inventories	174	178	161	162	178	154	154	-19.4
Producers' Market Inventories	284	224	267	298	224	292	292	-15.8
Consumers Purchased Inventories	496	529	531	499	529	508	508	7.7
Waste Paper at Paper & Bd. Mills	838	887	838	817	887	847	847	7.7
Days of Supply at Pulp Mills of Chemical Paper Grade Mkt. Pulp	16	12	14	15	12	14	14	-30.8

SOURCES: Wood Pulp Data, Pulp Division, Pulp, Materials and Technology Group, API. Waste Paper Data, Paper Recycling Committee, API.
P - Preliminary; R - Revised; (0) - Indicates zero to five hundred short tons

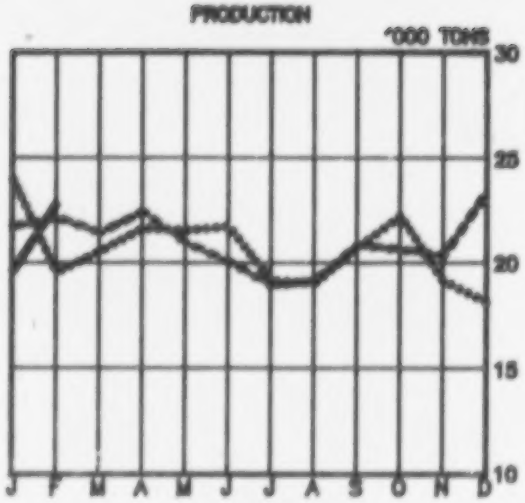
BLEACHED BRISTOLS

PRODUCTION



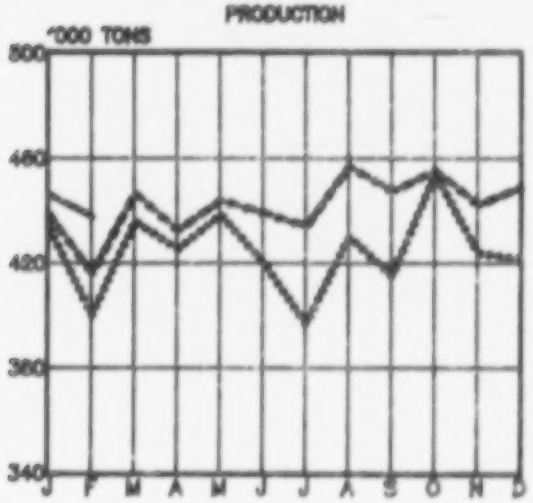
THIN PAPER

PRODUCTION



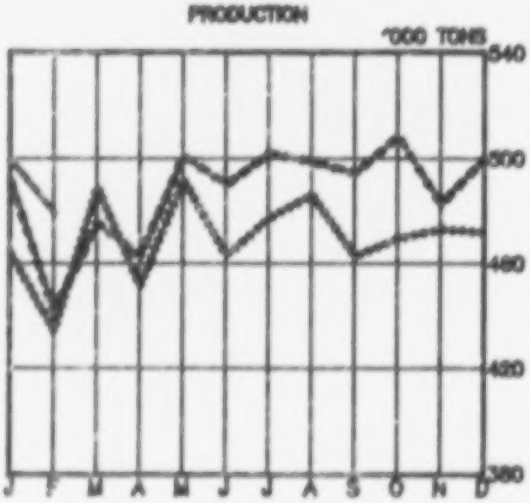
TISSUE PAPER

PRODUCTION



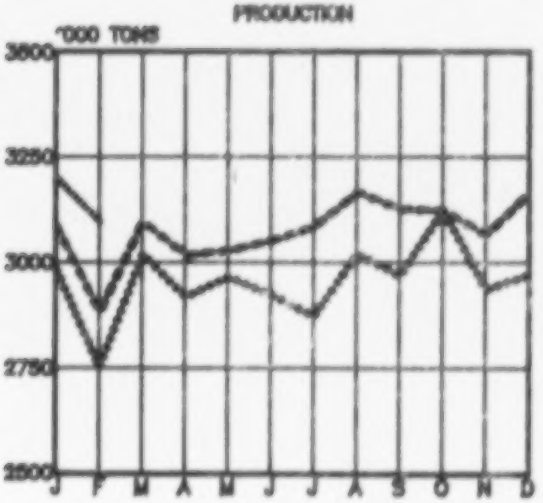
NEWSPRINT

PRODUCTION



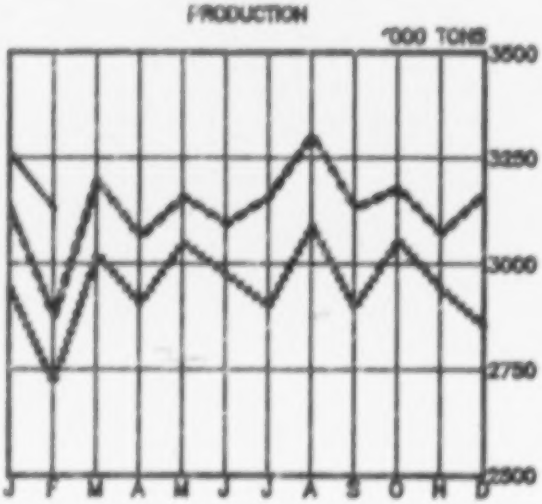
TOTAL PAPER

PRODUCTION



TOTAL PAPERBOARD

PRODUCTION



1956 ••••••• 1957 -·-·-·-1958 ———

F I B R E G O O S R A W M A T E R I A L S
(Thousands of Standard (128 cubic foot) Cords)

		YEAR 1986	YEAR 1987	OCTOBER 1987	NOVEMBER 1987	DECEMBER 1987	JANUARY 1988	Annual Rate Y T D 1988	% Change From Same Period Last Year
PULPWOOD									
Total U.S.	- Total Receipts	98,943	94,312	8 436	7 227	6 883	7 737	92,844	-4.2
	- Total Consumpt	91 434	93,946	7,984	7,481	8,162	8,223	98,676	2.2
	- Residues *	32,755	33,899	3,029	2,669	2,782	2,585	31,020	-5.4
	- Inventories	6,794	5,896	5,301	5,211	5,896	4,629	4,629	-1.8
So. Atlantic	- Total Receipts	29,513	31,147	2,814	2,462	2,668	2,554	30 648	1.4
	- Total Consumpt	29 425	30,915	2,485	2,466	2,692	2,684	32,208	4.2
	- Residues *	9,363	9 553	915	828	828	810	9,720	3.2
	- Inventories	994	1,211	1,256	1,248	1,211	1,025	1 025	18.1
Northeast	- Total Receipts	7,277	6,941	593	513	599	697	7,284	-11.5
	- Total Consumpt	7,337	7,189	599	559	578	644	7,728	-3.3
	- Residues *	1,419	1,543	134	126	131	110	1,416	10 3
	- Inventories	484	594	562	587	594	598	598	20.8
South Central	- Total Receipts	31,798	33,658	2,979	2,564	2,968	2,637	31,644	-7.5
	- Total Consumpt	33,113	33,859	2,787	2,582	2,996	2,818	33,816	9.6
	- Residues *	9,792	9,992	867	771	884	745	8,940	-16.4
	- Inventories	926	1,296	1,363	1,317	1,294	1,066	1,066	16.8
North Central	- Total Receipts	6,571	6,592	632	487	573	675	8,109	-0.9
	- Total Consumpt	6,718	6,764	618	563	569	652	7,824	11.1
	- Residues *	1,842	1,263	165	117	152	167	2 004	92.8
	- Inventories	892	830	883	815	830	873	873	-14.5
West	- Total Receipts	15,792	16,022	1,423	1,201	1,294	1,264	15,168	-5.5
	- Total Consumpt	15,939	16,099	1,383	1,231	1,336	1,425	17,100	9.5
	- Residues *	11,159	10,548	948	815	795	745	8 940	-13.6
	- Inventories	1,498	1,167	1,257	1,324	1,167	1,067	1,067	-24.3

* Consumption of Residues in Cord Equivalents. SOURCE American Pulpwood Association 10 Mar 88

U N I T E D S T A T E S T R A D E W I T H C A N A D A

IMPORTS FROM CANADA

	YEAR 1987 Tons	YEAR 1987 ($000's)	DECEMBER 1987 Tons	DECEMBER 1987 ($000)	JANUARY 1988 Tons	JANUARY 1988 ($000)	Annual Rate Y-T-D 1988 Tons	% Change From same Period Last Year
Pulpwood, Roundwood (in cords of 128 cubic feet)	15,382	1,736	2,148	454	1,581	159	18,812	576.1
Pulpwood chips	487,147	15,258	46,218	1,787	74,678	2,885	936,136	824.8
Wood Pulp, Total	6,328,116	1,862,819	554,274	161,306	545,944	165,197	6,151,328	-19.5
Waste Fibrous Materials, Total	186,286	36,423	17,531	3,461	19,584	4,194	234,047	23.8
Paper, Board & Products, Total	19,588,267	5,491,983	834,189	419,911	886,959	468,213	10,643,587	-5.4
Paper, Paperboard,Wet Machine Bd. & Constr. Paper & Bd.	10,441,472	4,845,691	822,966	481,638	875,718	448,881	10,508,611	-5.2
Paper, Paperboard & Products	12,365,412	5,027,943	821,312	415,845	870,618	455,385	10,447,564	-5.1
Paper & Paperboard, Only	10,218,838	4,779,792	810,169	397,564	859,189	435,975	10,312,568	-5.8
Paper, Total	9,961,198	4,698,148	786,274	389,474	836,335	428,143	10,036,028	-5.1
Newsprint	8,588,389	3,996,147	669,259	323,586	708,669	354,393	8,504,028	-8.7
Printing, Writing & Rel. Pap.	1,111,641	681,978	94,589	52,978	101,539	59,814	1,218,462	25.5
Pack. & Ind. Conv. Paper	219,514	102,986	17,028	9 812	22,338	10,849	268,056	2.7
Special Industrial Paper	5,479	9,044	491	943	241	497	2,892	-56.7
Tissue Paper	49 257	27,194	4,204	3 842	3,549	2,698	42,588	46.4
Paperboard, Total	257,639	81,554	23,895	8,090	23,854	7,832	276,648	8.2
Convtd Papers&Paperbd Products	146,575	248,241	11,143	18 281	11,241	19 611	134,096	-11.8
Wet Machine Board	2,899	1,977	109	118	274	189	3,298	51.3
Construction Paper & Board	719,744	63,983	12,617	3,949	16,956	4,638	192,651	-16.7

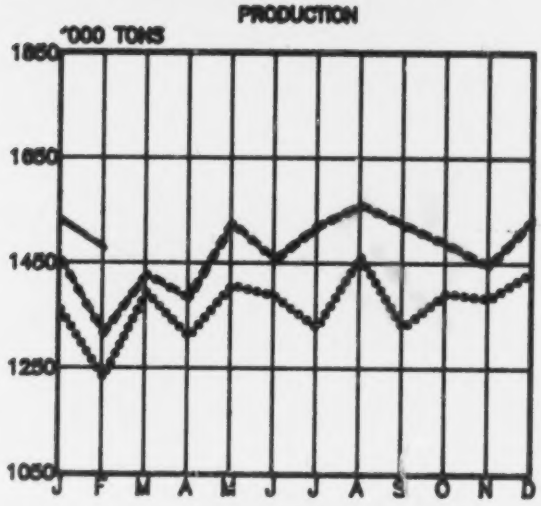
EXPORTS TO CANADA

Pulpwood, Roundwood (in cords of 128 cubic feet)	12,617	778	1,959	88	351	16	4,212	N.M.
Pulpwood chips	61,575	4,414	4,227	175	778	36	9,336	-72.1
Wood Pulp, Total	198,921	75,956	11,718	5 125	28 771	8 616	249,252	58.4
Cotton Pulp & Other Pulp	58,288	14,775	8,191	1,962	9,893	1,838	189,116	227.4
Waste Paper	286 898	30,592	31,388	3 628	17,798	2,173	213,576	-11.3
Paper, Board & Products, Total	957,434	598,429	77,498	51,941	179,186	87,355	2,152,626	158.7
Paper, Paperboard,Wet Machine Bd. & Constr. Paper & Bd.	712,424	198,256	59,189	34,532	161,791	78,693	1,965,494	193.6
Paper, Paperboard & Products	928,755	581,481	75,968	50,744	176,798	86,139	2,121,577	156.4
Paper & Paperboard, Only	675,815	381,388	56,777	33,335	141,264	69,675	1,916,446	283.1
Paper, Total	297,585	358,887	24,665	33,114	29,568	22,335	394,811	-0.6
Newsprint	4,525	3,728	374	268	238	238	2,854	-59.4
Printing, Writing & Rel. Pap.	151,716	125,667	13,387	12,444	12,191	11,417	147,613	9.8
Pack. & Ind. Conv. Paper	25,826	17,841	2,433	1,434	3,858	1,651	16,695	35.2
Special Industrial Paper	110,187	97,994	8,370	8,458	13,537	8,305	162,444	-5.9
Tissue Paper	5,411	6,498	281	498	614	758	5,206	99.4
Paperboard, Total	378,230	139,591	32,113	16,221	131,619	47,141	1,573,634	461.6
Convtd Papers&Paperbd Products	244,988	298,173	18,291	17,489	15,504	16,662	187,132	-1.9
Wet Machine Board	10,212	4,828	509	241	687	269	8,239	-44.7
Construction Paper & Board	26,467	12,129	1,913	956	1,981	948	22,818	38.6

SOURCE: Bureau of Census, Department of Commerce E - Estimate of tonnage based on square foot data 10 Mar-88

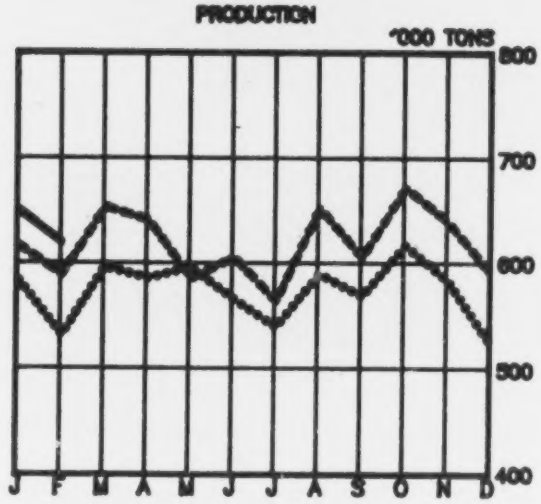
UNBLEACHED KRAFT LINERBOARD

PRODUCTION



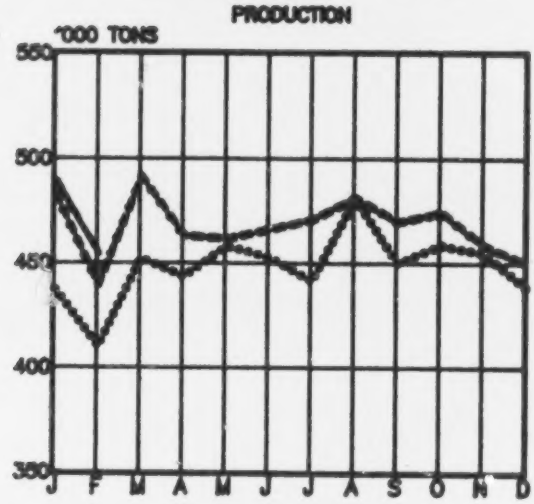
RECYCLED PAPERBOARD

PRODUCTION



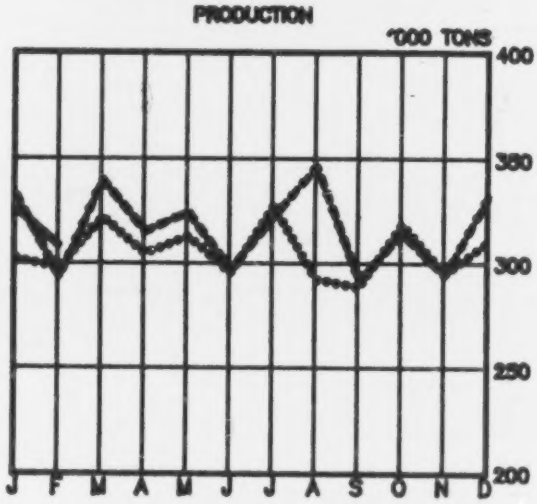
SEMICHEMICAL PAPERBOARD

PRODUCTION



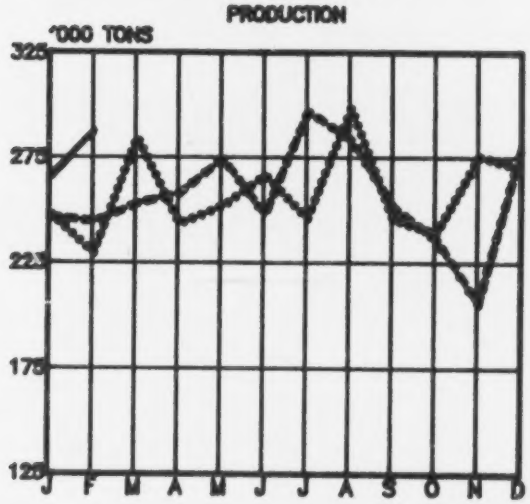
SOLID BLEACHED PAPERBOARD

PRODUCTION



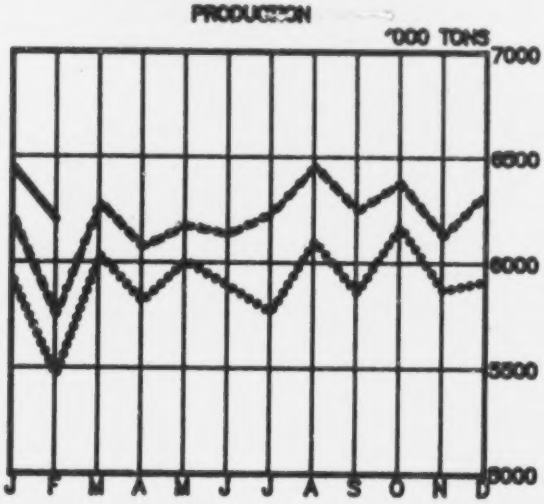
PAPERBOARD FOR EXPORT

PRODUCTION



TOTAL PAPER AND PAPERBOARD

PRODUCTION



1986 ••••••• 1987 ▬▬▬ 1988 ——

I M P O R T S

	YEAR 1987 Tons	YEAR 1987 $000	1987 DECEMBER Tons	1987 DECEMBER $000	1988 JANUARY Tons	1988 JANUARY $000	(1) Annual Rate YTD 1987 Tons	% Change from same Period Last Year
* * *								
Pulpwood Roundwood (cords)	15 432	1 746	2.148	454	1 561	159	18 012	505.24
Pulpwood Chips	525 629	15.476	66.388	1.720	75,171	2 085	902 052	823 59
Total All Imports	17 891.172	9.043 688	1.461.792	775 851	1 467 238	798 464	17 606.855	-5.74
Wood Pulp Total	4.858.238	2 069.389	414.551	188.932	389 927	187,160	4 679,124	-11.89
Waste Papor	127 398	19 231	13.238	2.138	14 592	2 694	175 104	74 03
Other Fibrous Materials	76.491	27.287	5.529	2 074	6,548	2.422	78.581	-26.69
Paper Board & Products Total	12 837 046	6 927 693	1.028.473	582 715	1.056 171	598 188	12 674.046	-3 69
Paper Paperboard Wet Machine Bd. & Construction Paper & Board	12.435 486	5.995.122	997 018	508 868	1 026 365	529 586	12 316.380	-3 39
Paper Ppbd & Prds ex Cnst&WMB	12 527.598	6 828 736	1,009.847	576,446	1.033 578	591.355	12 402 941	-3.45
Paper & Paperboard Only	12.126 039	5.896 165	978.392	502.591	1 003.773	522 754	12 045.275	-3 13
Paper Total	11.765.288	5 768.703	949.758	492.277	976.974	513,188	11.723,687	-1 95
Newsprint	8.986 548	4.121.327	710.046	341.072	726,837	361.770	8 722 044	-8.25
Printing & Writing	2.410.216	1.412.458	211.377	130.963	214,449	129.998	2 573 387	25.73
Uncoated Groundwood	1.269.774	654.767	104.753	55 937	114.468	57 941	1 373.618	45.85
Coated Print.& Impreg. Pap.	674 531	467 865	62,135	45,647	53,207	41,123	638.489	10 85
Uncoated Free Sheet	417.395	249.943	40.897	26 291	43.568	28.081	522.818	14.77
Uncoated Book	210 624	119.775	11.490	7,537	19 671	11.886	236.054	33.84
Writing and Similar Paper	206.771	130.168	29 407	18 754	23.897	16 195	286 764	2 72
Thin (except Cigarette)	47.567	38 831	3.529	3,018	3,091	2.725	37.096	-48.77
Bristols	950	1.052	63	70	114	128	1 366	32 94
Total Pkg & Other Paper	310 324	191.620	23.614	16,479	30 699	18,165	368 393	7.04
Unbleached Kraft Paper	168.420	69.828	11.912	5 370	15.183	6 786	182.197	-3 55
Other Pkg. & Indust. Paper	141.904	121.792	11.702	11,109	15.516	11,379	186,196	19 91
Tissue	58.121	43 299	4.722	3.763	4 989	3 254	59.863	1 49
Paperboard, Total	360.831	127 461	28,634	10,314	26.799	9,566	321.588	-32.81
Test or Containerboard	80.981	29.352	7.676	3 154	7.528	3 183	90.336	-10.53
Semi Chemical Corrugating	128.636	33.898	13.591	3.891	12,508	3,481	150.098	13.10
Other Paperboard	151,214	64.211	7 367	3.269	6 763	2 901	81.154	-66.87
Convtd Paper&Paperbd Products	481 559	932 571	31.456	73,855	29 806	68.602	357.666	-13.11
Paper Products, Total	368.179	866 121	29 135	69 520	26.949	63.914	323 386	-14 04
Paperboard Products, Total	33.388	66.450	2.321	4,334	2.857	4 688	34,280	-3.26
Wet machine Board	3.463	2 638	203	147	296	221	3 557	42.64
Construction Paper & Board	305.985	96 320	18.423	6,122	22,296	6 612	267.548	-13 97
Notes								
Other: No Weight Avail. ($000)		201.453		15 616		13 908	166 896	-9.83
Total Imports Incl. Other($000)		9 245 053		791 466		804 372	9 652 463	5.68

E X P O R T S

							(1)	
Pulpwood, Roundwood (cords)	16 178	913	3.639	147	351	16	4.212	N.M.
Pulpwood Chips	2.546 467	188 459	272 691	28 051	126 596	8 782	1 519.152	4 52
Total All Exports	14.797 437	6 007 818	1 459 414	601.457	1,327,124	543.554	15 925.490	24.76
Wood Pulp Total	4 889 331	2.259.377	526 543	256.360	390.675	191 818	4 688.100	27.54
Cotton Pulp and Other Pulp	182 001	91.365	19,365	9,401	18.836	8.671	226,032	41.32
Waste and Old Paper	4 422.139	553.348	444.888	54 207	417 137	51 498	5 005 644	28.95
Paper, Board & Products,Total	5 303.966	3.103.728	468,618	281,489	500,476	291.568	6.005.714	18 98
Paper,Paperboard,Wet Machine Bd. & Construction Paper & Board	4.578.770	2.289 329	405 847	210 498	444.256	221.172	5 331 868	21 28
Paper, Ppbd & Prod ex Cnst&WMB	5.196 613	3.044.506	460.407	276,808	492,262	287.798	5.907.143	20.12
Paper & Paperboard, Only	4 471.418	2.221,107	397 636	205 817	436 041	217.402	5 232.497	22 66
Paper, Total	921,397	776 181	84 282	73 925	76 479	68 226	917 753	2 91
Newsprint	339 773	210.093	29.972	19.942	23,197	17.278	278,362	-19.73
Printing & Writing	249.092	242.639	22.629	22.684	20 187	21 874	242 244	19.25
Uncoated Groundwood	55 841	39 750	4.747	3.614	3 727	3 525	44.726	-12.14
Clay Coated Paper	100.839	72.145	9 313	6 907	8 042	6 142	96 508	22 78
Uncoated Free Sheet	67 858	99.330	6.871	9,791	5.848	8 537	70.176	24.57
Other Printing & Writing	24.554	31.414	1.699	2.372	2 570	2 870	30.834	70.23
Total Pkg. & Other Paper	294.201	292 659	27.988	28,388	29.911	26 063	358 934	11.09
Unbleached Kraft	89 194	40.758	10 304	4 786	6 968	3 483	83 614	14 51
Other Pkg. & Indust. Paper	205.007	251 901	17.684	23,594	22.943	22,580	275,321	9 97
Tissue	38 332	30 790	3.693	2.918	3 184	3.812	38.213	106.69
Paperboard, Total	3 550 021	1.444.926	313.354	131.893	359.562	149,176	4,314.744	27 89
Solid Wood Pulp	3 218 952	1.321.618	283.557	122 381	334 844	139 045	4 018 122	29.30
Total Linerboard	2.296 633	812,161	203.931	74,603	162.881	61,560	1 954.571	-7.36
Bleached Kraft Linerboard	102.266	46.429	16 480	6 856	12 852	6 635	154 226	242 30
Unbleached Kraft Linerbd	2.194.367	765 731	187.451	67.747	150.029	54 925	1.800,344	-12.81
Other Unbleached Kraft	210.566	78.596	14 923	5 314	114.768	41.828	1 377 221	456.98
Other Bleached Kraft	647.803	487.923	62,145	41,161	51,191	33,259	614,293	-5.43
Semi-Chemical Corrugating	63.951	22 938	3.458	1.304	6 003	2.398	72.037	-28.58
Recycled Paperboard	331.069	123.308	29,797	9,512	24.719	10,131	296.622	11.33
Convtd Paper&Paperbd Products	725.196	823.399	62 771	70 991	56 221	70 396	674.646	3 47
Paper Products, Total	301.202	540 681	27.757	45,465	23,437	43 883	281,245	8.51
Paperboard Products, Total	423.994	282,718	35 014	25.526	32.783	26 512	393.401	0 14
Wet Machine Board	17.328	7.816	878	432	953	497	11.434	-59.22
Construction Paper & Board E	90.024	51 405	7 333	4 248	7 262	3 362	87 138	-14 42
Notes								
Other No Weight Avail. ($000)		8.037		676		521	6 247	9.15
Total Exports Incl. Other($000)		6.015.855		602,133		544.074	6 526.892	32.02

SOURCE: Bureau of Census U.S. Department of Commerce. E - Incl. estim. of tonnage based on square foot data.
(1) Annual Rate Year To Date is in tons unless otherwise specified in item description.

PRODUCER PRICE INDEXES
1982 = 100

	1986	1987	NOVEMBER 1987	DECEMBER 1987	JANUARY 1988	FEBRUARY 1988	Annual Rate Y T D 1988	% Change from same Period Last Year
Pulp, Paper and Products except Building Grades	107 5	114 3	117 2	117 5	118 9	119 6	119.3	6.6
Pulp Paper & Products ex. Building Grades & ex Waste Paper *	106 9	113 2	116 0	116 3	117 6	118 4	118 0	6 4
Total Wood Pulp	94 7	111 6	117 6	118 4	120 6	127 3	124 0	17 5
Total Paper	107 0	111.5	114.2	114.7	118.1	118 7	118.4	7.1
Total Paper, exc. Newsprint	107 9	110 6	113 6	114 4	118 1	118 6	118 4	6 4
Newsprint	103 3	112 3	117.2	116 6	125.4	126 7	126.1	16.4
Total Paperboard	106.5	110 1	122.1	122.7	122.7	122.8	122.8	7 0
Total Paper and Paperboard *	106 8	113.6	116.7	117.2	119.5	120 0	119.8	7.1
Converted Products	109 4	114 7	117 0	117 1	117 8	118 3	118 1	4 9
Waste Paper	142 6	101 5	186.1	188.0	193.1	189 0	191 1	16 8
All Commodities	100 2	102 0	104.2	104.1	104 5	104.6	104 6	3 8
Industrial Commodities	100.0	102.6	104.2	104.1	104.3	104.4	104.4	3.7

SOURCE Producer Price Indexes Bureau of Labor Statistics, U.S. Department of Labor * Computed by API

UNIT LABOR COSTS IN MANUFACTURING, NATIONAL CURRENCY BASIS, THELVE COUNTRIES

(INDEXES: 1977=100)

YEAR	UNITED STATES	CANADA	JAPAN	BEL-GIUM	DEN-MARK	FRANCE	GERMANY	ITALY	NETHER-LANDS	NORWAY	SWEDEN	UNITED KINGDOM
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.6	106.5	98.7	101.6	108.6	108.0	104.5	111.2	101.8	108.1	108.4	114.2
1979	117.0	116.2	98.8	105.0	115.7	117.0	107.3	121.9	104.1	108.2	108.3	134.1
1980	130.6	133.7	98.4	109.4	121.0	134.3	115.7	137.0	108.5	120.0	118.6	164.5
1981	140.1	146.7	102.0	113.2	131.1	151.0	121.2	158.9	110.4	133.4	130.9	181.2
1982	148.7	170.0	101.2	111.4	142.2	167.2	125.2	184.0	115.2	142.1	136.3	184.4
1983	145.0	168.1	98.9	107.8	144.9	179.9	124.4	208.4	113.0	148.0	138.1	182.2
1984	142.2	158.8	95.0	112.1	155.4	191.6	125.8	217.8	106.8	152.0	144.8	183.9
1985	142.4	162.6	92.9	116.3	165.7	200.9	128.1	236.9	108.7	163.5	156.1	189.0
1986	141.8	169.4	93.5	117.6	173.2	205.9	132.1	244.1	111.6	180.5	167.3	196.1

UNIT LABOR COSTS IN MANUFACTURING, U.S. DOLLAR BASIS, THELVE COUNTRIES

(INDEXES: 1977=100)

1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.6	99.3	126.8	115.8	118.4	117.9	121.0	11 .6	115.7	109.7	107.2	125.6
1979	117.0	105.4	121.3	128.3	132.0	135.2	135.9	129.5	127.4	113.8	112.9	163.1
1980	130.6	121.5	116.8	134.3	129.0	156.4	147.9	141.4	134.1	129.3	125.3	219.2
1981	140.1	130.0	123.8	109.6	110.3	136.4	124.9	123.2	108.9	123.6	115.4	210.2
1982	148.7	146.3	108.8	87.2	102.3	124.9	119.7	119.9	105.8	117.1	96.9	184.8
1983	145.0	144.9	111.5	75.5	95.1	116.1	113.1	121.1	97.1	107.9	80.4	158.3
1984	142.2	130.3	107.2	69.5	90.1	107.8	102.6	109.5	81.6	99.1	78.2	140.9
1985	142.4	126.5	104.3	70.2	93.9	110.0	101.1	109.6	80.4	101.3	81.1	140.5
1986	141.8	129.5	148.7	94.3	128.4	146.2	141.3	144.5	111.9	129.8	104.9	164.9

NOTE: THE DATA RELATE TO ALL EMPLOYED PERSONS (WAGE AND SALARY EARNERS, THE SELF-EMPLOYED, AND UNPAID FAMILY WORKERS) IN THE UNITED STATES AND CANADA, AND ALL EMPLOYEES (WAGE AND SALARY EARNERS) IN THE OTHER COUNTRIES.

SOURCE: U.S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS, DEC 1987.

in those countries where the paper industry is an important part of all manufacturing.

The effect of the run-up of the value of the dollar in international markets from 1980 to 1985 is clearly shown in this table, as is the impact of the subsequent decline. Unit labor costs in manufacturing in the United States rose 9% from 1980 to 1985, and then declined fractionally in 1986.

Measured in dollars, unit labor costs in Sweden declined 35% from 1980 to 1985 as the dollar rose, and then increased 29% (from that lower base) in 1986 as the dollar returned to levels more consistent with economic fundamentals. However, measured in local currency, unit labor costs in Sweden increased 32% from 1980 to 1985 and a further 7% in 1986.

In Canada, whose currency tends to move much more closely in line with the U.S. dollar than the European currencies, unit labor costs in terms of the U.S. dollar rose 4% from 1980 to 1985, and then another 2% in 1986. In terms of the Canadian dollar, the gain was 21.6% and 4% respectively.

Unit labor costs in manufacturing in Japan declined 5.6% in terms of its own currency between 1980 and 1985. Japan was the only country listed to show such a decline. In terms of the U.S. dollar, the decline was 10.7%. In 1986, however, the Japanese yen rose sharply against the U.S. dollar. Unit labor costs in manufacturing in Japan rose 0.6% in terms of the yen, but 42.6% in terms of the U.S. dollar, bringing the 1986 index level above the index level shown for U.S. unit labor costs. While these data measure trends within each country, they do not compare the levels of unit labor costs between the various countries.

POSTAGE RATE INCREASE

Effective April 3, 1988, the United States Postal Service has initiated an increase in postage rates. The Postal Service presently handles an estimated 160 billion pieces of mail annually, nearly 40% of which is third class mail.

At the end of 1987, third class mail volume exceeded 70,000 tons per week. This mail consists largely of advertising matter of one sort or another, nearly all of which is paper.

Third class mail rates increased, on average, by 25%, with increases in the major uses ranging from a 22% increase for carrier-route pre-sorted bulk mail to 34% in the minimum per piece rate for non-sorted mail. Because the average increase is weighted by the mail volume, it is close to the lower level of the range. The history of changes in mail volume following past increases should give some idea of the potential impact of the current increases on the future volume.

The last increase in third class postage rates was on February 17, 1985. The average increase then was 14%, with the bulk rate at 13%. The chart below pictures the trend of the volume of third class mail from the first quarter of 1981 to the last quarter of 1987.

Continued on page 12

The chart shows that the volume of mail bunched up in early 1985 as mailers rushed to beat the postage increase. The volume moved downward from that first quarter 1985 peak during the next two quarters, and showed only small changes for the subsequent four quarters. The rate increase was fairly well absorbed by the system by then, and the volume of mail resumed its sharply rising long term trend.

There were two postage rate increases in 1981, a preliminary one of 9% in March and final one in November that brought the total increase to 17%. The volume of third class mail remained relatively flat during the second and third quarters of 1982, but moved sharply upward in the fourth quarter, probably responding to the same forces that spurred mailings in the first quarter of 1985. The volume fluctuated about a flat trend during the first three quarters of 1982, but then turned upward. The 1983-1984 upswing in total economic activity was accompanied by a rapid expansion in the use of third class mail, bringing the fourth quarter 1984 total 50% above that of the fourth quarter of 1982.

It would appear from this that postal hikes depress demand for some two to four quarters, but are then absorbed because postage costs are but one of many cost factors associated with direct mail advertising.

The lower line of this chart shows the trend of second class mail, largely magazines, with a volume of nearly 40,000 tons per week. There was a significant increase in volume in 1983 and 1984, but the trend since then was essentially flat. The trend suggests that the volume of second class mail was not particularly sensitive to the changes in the postage rates.